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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/394,222	09/13/1999	WILLIAM J. DALLY	259709	3910

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EXAMINER

LANE, JOHN A

ART UNIT PAPER NUMBER

2188

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/394,222

Applicant(s)

DALLY, WILLIAM J.

Examiner

Jack A Lane

Art Unit

2188

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 August 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.Claim(s) objected to: None.Claim(s) rejected: 1-31.

Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

Continuation of 5. does NOT place the application in condition for allowance because: In the Remark's filed 08/27/04 Applicant argues: the '424 references does not teach that the control unit 46 selects any memory references from a set of pending memory references and/or with the references being presented to the memory array in a different order than that in which they were received

In response to the first portion of the above statement, col. 9, lines 1-10 clearly state "control unit 46 may select memory operations from request queue 44 in order." If the memory operations (i.e. addresses, control information, priority) are present in the queue and they have not been delivered to DRAM 14 then they are pending. It could be said that the order memory operations are received is not the same as the order selected by control unit 46. However, this would also read on the present claims. Under either scenerio, queue 44 receives memory operations in "an order" and control unit 46 either selects in that order or does not. In response to the second portion above, since the memory operations are generally selected in order (i.e. the order in which they were received or whatever order desirable), selecting a higher priority memory operation over a lower priority memory operation would necessary change the order in which control unit 46 generally selects. The higher priority memory operation also comes from the pending memory operations in queue 44 as control unit 46 receives address and control data only from queue 44.

In a further argument, applicant questions the characterization of "memory operations" as pertaining to microprocessor instructions and not addresses uses by a memory to access particular memory cells (as found in the present invention). In response, applicant should reconsider figure 2 as showing queue 44 receiving address, priority, control, data and tag information.

With respect to claim 13, applicant argues:

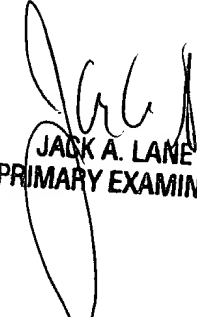
'424 reference fails to teach an out of order memory access

In response, a higher priority memory operation selected over a lower priority memory operation (as discussed above) and delivered to memory 14 for accessing corresponds to an out of order memory access.

With respect to claims 20-31, applicant questions '424 reference teaching the following:

prioritizing as a function of data-access efficiency and before the received addresses are used to access the memory array

In response, the '424 summary teaches methodologies of assigning priority levels to prefetch and fetch memory operations to reduce overall effective memory latency. The assignment of priority occurs in the microprocessors 10A and 10B before the read addresses are used to access memory array 14.


JACK A. LANE
PRIMARY EXAMINER